

VII. WASTE REDUCTION AND RECYCLING

Waste reduction and recycling are increasingly popular methods of reducing the volume of solid waste and re-using materials in Alaska and the U.S. By reducing the amount of solid waste that ultimately must be disposed of in a landfill, a community can reduce the disposal cost significantly. A summary of Seattle buyers for recycled paper, plastic, glass and metal food and beverage cans is presented in the Appendix. The following summarizes typical municipal waste composition by percent weight⁶:

<u>Component</u>	<u>Range</u>	<u>Typical</u>	<u>Packaging Materials</u>
Food Wastes	6-26 %	10 %	--
Paper	25-45	40	55.8 %
Cardboard	3-15	4	--
Plastics	2-9	5	3.6
Textiles	0-4	2	0.4
Rubber	0-2	1	--
Leather	0-2	1	--
Yard Wastes	0-20	15	--
Wood	1-4	2	7.8
Glass	4-16	8	18.1
Tin Cans	2-8	6	14.3
Nonfer. Metals	0-1	1	--
Ferrous Metals	1-4	2	--
Dirt, Ashes	0-10	4	--

The largest component by far of solid waste is paper and cardboard. Since the popularity of recycling has increased in the U.S. in recent years, the market price of recycled paper has

⁶ Managing Sanitary Landfill Operations, Governmental Collection and Disposal Association, Inc., Maryland, 1988.

dropped dramatically. Prices in Seattle range from \$5 to \$25 per ton depending on the type of paper or cardboard and whether it is baled or not. Given the cost of shipping paper to Seattle, it makes more sense for residents of Gustavus to burn paper and cardboard in woodstoves at their residence. This would eliminate as much as 40 percent of the waste stream.

The second largest component of solid waste is food and yard waste, which comprises about 25 percent of the waste stream. Since there are not many lawns in Gustavus, the amount of yard waste generated is probably quite a bit lower than in other U.S. communities. In any case, if food and yard wastes are composted and used for garden mulch at the residence, as much as 25 percent of the solid waste generated can be eliminated from the landfill.

Much of the remaining components of the waste stream can be recycled. In descending order in terms of market price in Seattle, it is recommended that the following materials be recycled; aluminum, ferrous and non-ferrous metals, plastics, glass (separated by color) and tin cans. Approximately 20 percent of the solid waste stream by weight can be eliminated by recycling these materials. Sorting and bailing materials in Gustavus maximizes the price obtained for the materials in Seattle and this makes it economically feasible to ship them from Gustavus to Seattle.

In summary, up to 85 percent of the solid waste generated in Gustavus can be burned in the woodstove, composted in the backyard, or recycled by the community. Instead of each person generating, on average, an estimated 2,000 pounds (compacted to 2.0 cu.yd.) of solid waste each year, only 300 pounds (compacted to 0.3 cu.yd.) of waste would be generated. Given the good recycling effort in Gustavus for the past two years, it is assumed that a 50 percent reduction in solid waste can be achieved in the future.

